

Trend Study 13A-6-99

Study site name: Bald Mesa.

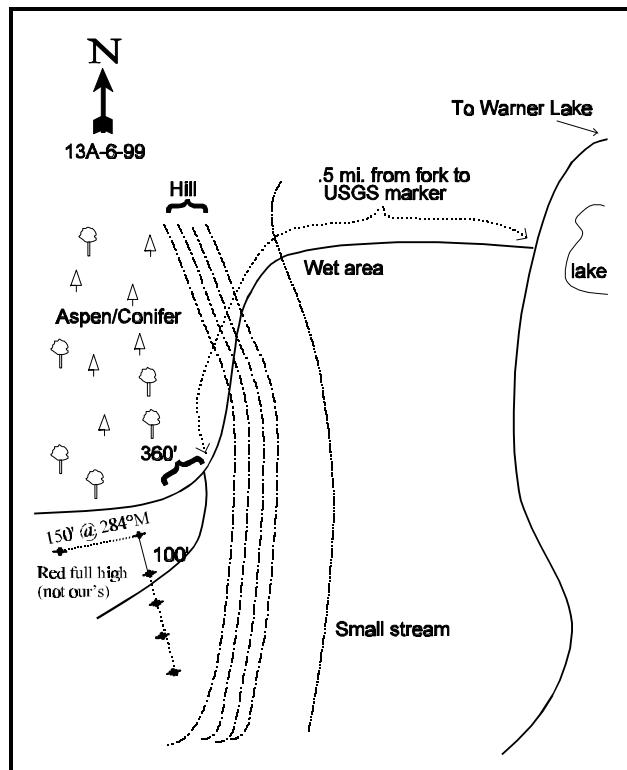
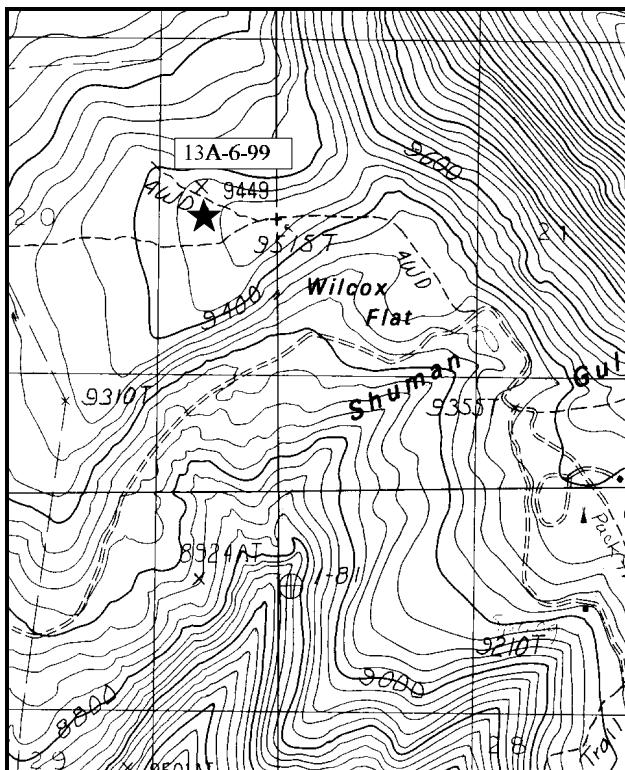
Range type: Snowberry.

Compass bearing: frequency baseline 185°M.

Footmark (first frame placement) 5 feet, footmarks (frequency belts) line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

LOCATION DESCRIPTION

From the LaSal Mountain Loop Road, take the Warner Lake Campground road 4.8 miles. Turn left onto a minor road which crosses Wilcox Flat, then turns into a rough, rutted road going up the side of the hill to Bald Mesa. Walk or drive 0.5 miles up this road, continuing past the aspen-conifer edge to a fork in the meadow. Follow the right fork 200 feet to the first baseline stake, located 10 feet off the road to the left. The transect is marked by 12" fence posts.



Map Name: Warner Lake

Township 26S, Range 24E, Section 20

Diagrammatic Sketch

UTM 4265472.838 N, 649258.710 E

DISCUSSION

Trend Study No. 13A-6 (33-6)

Bald Mesa is just west of the high LaSal peaks. This trend study samples a typical high elevation mesa that supports a mountain brush-forb-grass vegetation type. This type occupies only a small percentage of the high country. Here, it is bounded to the north and east by aspen and conifer forests. The area is used mostly as summer range for cattle with some big game use. 1999 pellet group transect data estimates 9 elk days use/acre (22 edu/ha) and 84 cow days use/acre (207 cdu/ha).

The fairly level mesa has a southwest aspect on a gentle 2% slope and an elevation of 9,400 feet. It is a productive site, rich in species and should receive annual precipitation in excess of 20 inches. The clay loam soil is slightly acidic (6.2 pH) and gravelly with scattered rock on the surface. Effective rooting depth is 15 inches. Phosphorus could be a limiting factor on this site at 6.1 ppm, where 10 ppm is considered minimal for normal plant development. No significant erosion has occurred on the site, although the access roads (which have now been closed) are washed out and severely eroded.

Snowberry forms the dominant shrub cover on this open site which comprises 67% of the shrub cover for 1994 and 1999. The plants are vigorous with mostly light use, but some showing moderate use. The mountain big sagebrush on the site has shown significant changes in its population, however this has been because of the problem with classifying whether it was mountain big sagebrush or black sagebrush. The combined sagebrush population for 1994 and 1999 is 620 plants/acre for both years, with over 90% being classified as black sagebrush in 1999. The decrease in the mountain big sagebrush density is mostly because some of these individuals were reclassified as black sagebrush during the 1994 reading, and more so in the 1999 reading. Because of the elevation and not generally used as a winter range, browse is not critical for this site. Also, the browse only makes up approximately 25% of the total vegetative cover. Other browse species found on the site include currant (*Ribes sp.*), low rabbitbrush, and Wood's rose.

Herbaceous vegetation forms a diverse and dense understory. Forbs are abundant with them providing almost 49% (1994) and 40% (1999) of the total vegetative cover. These species provide valuable summer forage. More than 30 forb species have been encountered on the site in 1994 and 1999, with 8 of the most common forb species providing 80% of the total forb cover. Grasses are also quite dense providing on average about 28% of the total vegetative cover. Kentucky bluegrass makes up the bulk of the grass cover, on average contributing 85% of it. The majority of the herbaceous species on this site are increasers with heavy grazing. The dense herbaceous understory accounts for a high amount of the vegetative cover (on average, 73% of the total vegetative cover). Litter cover decreased slightly in 1994, but since then it has increased by almost 30% in 1999.

1994 TREND ASSESSMENT

The soil trend is stable with percent bare ground at only 6%. Percent litter cover has decreased somewhat, but this has occurred on all sites with the extended drought conditions and will turn around with more normal precipitation patterns. The browse trend is mixed, for most all species it is stable except for mountain big sagebrush which has some downward population trends, but it only contributes 5% of the browse cover or 1% of the total vegetative cover. Another important consideration is that browse would not be a "key" species for this summer range. Trend for browse would therefore be considered stable. Trend for the herbaceous understory is slightly down with nested frequency values for grasses and forbs falling since 1987. This downward trend has most likely been caused by the long term drought we have been experiencing since 1985.

TREND ASSESSMENT

soil - stable

browse - stable

herbaceous understory - slightly down, but still in very good condition

1999 TREND ASSESSMENT

The soil trend is stable with percent bare ground down to only 5%. Percent litter cover has increased from 40% to 55%. The browse trend is mixed, but on average it only contributes 27% of the total vegetative cover. Another important consideration is that browse would not be a "key" species for this summer range. Trend for browse would therefore be considered stable. Trend for the herbaceous understory is down with lower nested frequency values. They are slightly down for grasses and substantially down for forbs which make up 55% of the herbaceous cover. This downward trend has mostly been caused by the many years of drought we have been experiencing since 1985.

TREND ASSESSMENT

soil - stable

browse - stable

herbaceous understory - slightly down, but still in very good condition

HERBACEOUS TRENDS --

Herd unit 13A, Study no: 6

| T y p e | Species | Nested Frequency | | | Quadrat Frequency | | | Average Cover % | |
|------------------|-------------------------------|------------------|------|------|-------------------|-----|-----|-----------------|-------|
| | | '87 | '94 | '99 | '87 | '94 | '99 | '94 | '99 |
| G | Agropyron spp. | b128 | a- | a1 | 54 | - | 1 | - | .01 |
| G | Bromus anomalus | ab1 | b5 | a- | 1 | 3 | - | .04 | - |
| G | Carex spp. | 4 | - | 5 | 2 | - | 2 | - | .03 |
| G | Dactylis glomerata | - | - | 5 | - | - | 2 | - | .04 |
| G | Koeleria cristata | a- | b35 | b27 | - | 15 | 12 | .36 | .21 |
| G | Phleum pratense | - | - | 5 | - | - | 2 | - | .15 |
| G | Poa arida | b136 | a28 | a17 | 41 | 11 | 6 | .54 | 1.07 |
| G | Poa fendleriana | - | - | 3 | - | - | 1 | - | .03 |
| G | Poa pratensis | a257 | b332 | b346 | 78 | 94 | 96 | 12.42 | 22.36 |
| G | Sitanion hystrrix | a34 | b57 | ab45 | 14 | 31 | 19 | .80 | .72 |
| G | Stipa comata | b99 | a49 | a32 | 43 | 24 | 13 | 1.14 | .68 |
| G | Stipa lettermani | a- | b59 | b48 | - | 31 | 21 | 1.08 | 1.42 |
| | Total for Annual Grasses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total for Perennial Grasses | 659 | 565 | 534 | 233 | 209 | 175 | 16.42 | 26.75 |
| | Total for Grasses | 659 | 565 | 534 | 233 | 209 | 175 | 16.42 | 26.75 |
| F | Achillea millefolium | 102 | 125 | 110 | 37 | 45 | 44 | 2.53 | 2.02 |
| F | Agoseris glauca | a- | b14 | b19 | - | 6 | 9 | .08 | .12 |
| F | Androsace septentrionalis (a) | b16 | a- | a- | 8 | - | - | - | - |
| F | Arenaria congesta | a181 | b240 | a195 | 66 | 76 | 73 | 8.03 | 5.33 |
| F | Arabis drummondii | b38 | a- | a- | 18 | - | - | - | - |
| F | Aster chilensis | a- | b50 | a- | - | 17 | - | .89 | - |
| F | Astragalus miser | c226 | b191 | a72 | 78 | 72 | 30 | 7.73 | 3.42 |
| F | Astragalus spp. | a- | a- | b179 | - | - | 69 | - | 7.96 |

| Type | Species | Nested Frequency | | | Quadrat Frequency | | | Average Cover % | |
|---------------------------|---------------------------------|------------------|------|------|-------------------|-----|-----|-----------------|-------|
| | | '87 | '94 | '99 | '87 | '94 | '99 | '94 | '99 |
| F | <i>Castilleja linariaefolia</i> | a- | b19 | b15 | - | 9 | 7 | .26 | .30 |
| F | <i>Calochortus nuttallii</i> | a- | ab3 | b13 | - | 2 | 7 | .01 | .08 |
| F | <i>Chenopodium album</i> (a) | - | - | 1 | - | - | 1 | - | .00 |
| F | <i>Cirsium calcareum</i> | a51 | b108 | a52 | 27 | 49 | 23 | 1.19 | 1.97 |
| F | <i>Clematis hirsutissima</i> | b13 | a- | a- | 6 | - | - | - | - |
| F | <i>Comandra pallida</i> | 28 | 21 | 31 | 11 | 8 | 11 | .33 | .78 |
| F | <i>Collinsia parviflora</i> (a) | - | - | 1 | - | - | 1 | - | .00 |
| F | <i>Crepis acuminata</i> | 15 | 18 | 18 | 6 | 6 | 8 | .16 | .45 |
| F | <i>Delphinium nuttallianum</i> | c75 | b8 | a- | 39 | 6 | - | .08 | - |
| F | <i>Erigeron flagellaris</i> | 88 | 52 | 29 | 37 | 21 | 12 | .33 | .21 |
| F | <i>Eriogonum racemosum</i> | 61 | 65 | 56 | 31 | 31 | 29 | 1.35 | .84 |
| F | <i>Erigeron speciosus</i> | a39 | b65 | a15 | 15 | 28 | 6 | 1.98 | .27 |
| F | <i>Eriogonum umbellatum</i> | 12 | 6 | 2 | 6 | 2 | 1 | .01 | .15 |
| F | <i>Galium boreale</i> | - | 5 | 4 | - | 2 | 2 | .53 | .41 |
| F | <i>Holosteum umbellatum</i> (a) | - | - | 5 | - | - | 2 | - | .01 |
| F | <i>Ipomopsis aggregata</i> | 2 | 3 | 3 | 1 | 1 | 1 | .00 | .00 |
| F | <i>Lathyrus brachycalyx</i> | - | - | - | - | - | - | - | .53 |
| F | <i>Lomatium dissectum</i> | - | 3 | 1 | - | 1 | 1 | .00 | .38 |
| F | <i>Lupinus sericeus</i> | b117 | a57 | a41 | 50 | 24 | 20 | 3.16 | 2.66 |
| F | <i>Lychnis drummondii</i> | - | - | 2 | - | - | 2 | - | .01 |
| F | <i>Mertensia brevistyla</i> | b8 | ab3 | a- | 5 | 1 | - | .00 | - |
| F | <i>Penstemon palmeri</i> | b49 | a4 | a4 | 23 | 2 | 2 | .15 | .03 |
| F | <i>Petradoria pumila</i> | a- | b26 | b31 | - | 10 | 14 | .92 | .51 |
| F | <i>Penstemon strictus</i> | a- | b32 | b31 | - | 17 | 11 | .52 | .61 |
| F | <i>Penstemon thompsoniae</i> | a- | ab2 | b6 | - | 1 | 3 | .03 | .06 |
| F | <i>Phlox</i> spp. | - | 3 | 3 | - | 1 | 1 | .15 | .03 |
| F | <i>Potentilla anersina</i> | 64 | 95 | 78 | 27 | 40 | 35 | 2.24 | 1.72 |
| F | <i>Polygonum douglasii</i> (a) | - | a1 | b15 | - | 1 | 6 | .00 | .03 |
| F | <i>Senecio integerrimus</i> | c197 | b84 | a29 | 78 | 31 | 13 | 1.18 | .29 |
| F | <i>Sedum lanceolatum</i> | b22 | ab1 | a- | 9 | 1 | - | .00 | - |
| F | <i>Taraxacum officinale</i> | b172 | a66 | a65 | 76 | 26 | 29 | .39 | 1.35 |
| F | <i>Thalictrum fendleri</i> | - | - | 3 | - | - | 1 | - | .30 |
| F | <i>Trifolium</i> spp. | 1 | - | 3 | 1 | - | 1 | - | .00 |
| F | Unknown forb-perennial | b34 | a- | a- | 19 | - | - | - | - |
| F | <i>Zigadenus paniculatus</i> | 2 | - | - | 2 | - | - | - | - |
| Total for Annual Forbs | | 16 | 1 | 22 | 8 | 1 | 10 | 0.00 | 0.05 |
| Total for Perennial Forbs | | 1597 | 1369 | 1110 | 668 | 543 | 465 | 34.35 | 32.89 |
| Total for Forbs | | 1613 | 1370 | 1132 | 676 | 544 | 475 | 34.36 | 32.94 |

Values with different subscript letters are significantly different at % = 0.10

BROWSE TRENDS --

Herd unit 13A, Study no: 6

| T y p e | Species | Strip Frequency | | Average Cover % | |
|------------------|--|--------------------|-----|--------------------|-------|
| | | '94 | '99 | '94 | '99 |
| B | Artemesia tridentata vaseyana | 19 | 22 | 1.96 | 1.57 |
| B | Chrysothamnus viscidiflorus lanceolatus | 41 | 34 | 1.79 | 2.50 |
| B | Chrysothamnus viscidiflorus stenophyllus | 0 | 0 | - | - |
| B | Clematis spp. | | | - | .15 |
| B | Ribes spp. | 4 | 0 | 2.62 | - |
| B | Ribes cereum cereum | 0 | 3 | - | 1.33 |
| B | Ribes montigenum | 0 | 3 | - | 1.26 |
| B | Rosa woodsii | 1 | 1 | .15 | .00 |
| B | Sambucus racemosa | 1 | 3 | .03 | - |
| B | Symphoricarpos oreophilus | 46 | 49 | 13.17 | 14.17 |
| Total for Browse | | 112 | 115 | 19.72 | 21.01 |

BASIC COVER --

Herd unit 13A, Study no: 6

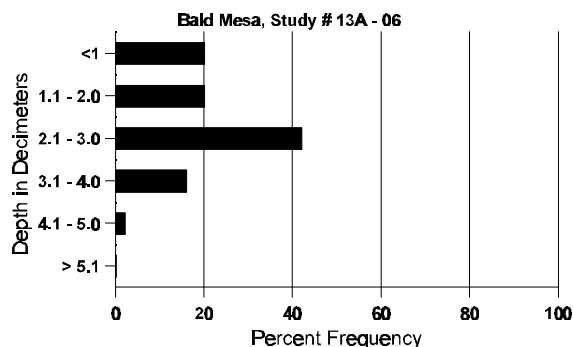
| Cover Type | Nested Frequency | | Average Cover % | | |
|-------------|---------------------|-----|-----------------|-------|-------|
| | '94 | '99 | '87 | '94 | '99 |
| Vegetation | 392 | 390 | 26.00 | 66.22 | 70.77 |
| Rock | 145 | 68 | 2.75 | 1.59 | 1.36 |
| Pavement | 91 | 99 | 0 | .20 | 1.12 |
| Litter | 364 | 348 | 64.00 | 39.64 | 54.87 |
| Cryptogams | 21 | 5 | .50 | .12 | .06 |
| Bare Ground | 212 | 145 | 6.75 | 6.11 | 5.03 |

SOIL ANALYSIS DATA --

Herd Unit 13A, Study # 06, Study Name: Bald Mesa

| Effective rooting depth (cm) | Temp °F (depth) | pH | %sand | %silt | %clay | %OM | PPM P | PPM K | dS/m |
|---------------------------------|--------------------|-----|-------|-------|-------|-----|-------|--------|------|
| 15.0 | 49.6 (16.3) | 6.2 | 40.2 | 32.6 | 27.3 | 5.0 | 6.1 | 2620.4 | 0.4 |

Stoniness Index



PELLET GROUP DATA --

Herd unit 13A, Study no: 6

| Type | Quadrat Frequency | | Pellet Transect Days Use/Acre (ha) '99 |
|--------|-------------------|-----|---|
| | '84 | '99 | |
| Elk | 4 | 3 | 9 (22) |
| Deer | - | 1 | 0 |
| Cattle | 4 | 17 | 84 (207) |

BROWSE CHARACTERISTICS --

Herd unit 13A, Study no: 6

| A G R E | Y | Form Class (No. of Plants) | | | | | | | | | Vigor Class | | | | Plants Per Acre | Average (inches) Ht. Cr. | Total | | | | | | |
|--|----|----------------------------|---------------------|---|------------------|---|-------------------|---|----------------|---|-------------|-----|-----|------|-----------------|-----------------------------|-------|--|--|--|--|--|--|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | | | | | | | | | |
| Artemesia tridentata vaseyana | | | | | | | | | | | | | | | | | | | | | | | |
| S | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 | | | | | | |
| | 94 | 4 | - | - | - | - | - | - | - | - | 4 | - | - | - | 80 | | 4 | | | | | | |
| | 99 | 4 | 4 | 1 | - | - | - | - | - | - | 9 | - | - | - | 180 | | 9 | | | | | | |
| Y | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 | | | | | | |
| | 94 | 3 | - | - | - | - | - | - | - | - | 3 | - | - | - | 60 | | 3 | | | | | | |
| | 99 | - | 8 | - | - | - | - | - | - | - | 8 | - | - | - | 160 | | 8 | | | | | | |
| M | 87 | 2 | 3 | 1 | - | - | - | - | - | - | 4 | - | 2 | - | 400 | 15 25 | 6 | | | | | | |
| | 94 | 15 | 3 | - | - | - | - | - | - | - | 18 | - | - | - | 360 | 16 20 | 18 | | | | | | |
| | 99 | 5 | 7 | - | 2 | - | - | 1 | - | - | 15 | - | - | - | 300 | 14 21 | 15 | | | | | | |
| D | 87 | 3 | 2 | 3 | - | - | - | - | - | - | 6 | - | 2 | - | 533 | | 8 | | | | | | |
| | 94 | 10 | - | - | - | - | - | - | - | - | 7 | - | - | 3 | 200 | | 10 | | | | | | |
| | 99 | 5 | 3 | - | - | - | - | - | - | - | 8 | - | - | - | 160 | | 8 | | | | | | |
| X | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 | | | | | | |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 260 | | 13 | | | | | | |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 420 | | 21 | | | | | | |
| % Plants Showing | | | <u>Moderate Use</u> | | <u>Heavy Use</u> | | <u>Poor Vigor</u> | | <u>%Change</u> | | | | | | | | | | | | | | |
| '87 | | | 36% | | 29% | | 29% | | -34% | | | | | | | | | | | | | | |
| '94 | | | 10% | | 00% | | 10% | | + 0% | | | | | | | | | | | | | | |
| '99 | | | 58% | | 00% | | 00% | | | | | | | | | | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 933 | Dec: | 57% | | | | | | | | |
| | | | | | | | | | | | | '94 | 620 | | 32% | | | | | | | | |
| | | | | | | | | | | | | '99 | 620 | | 26% | | | | | | | | |

| A G E | Y | Form Class (No. of Plants) | | | | | | | | | Vigor Class | | | | Plants Per Acre | Average (inches) Ht. Cr. | Total |
|--|-----|----------------------------|---------------------|-----|---|------------------|---|-----|-------------------|-----|-------------|----------------|------|------|--------------------|--------------------------------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | | | |
| Chrysanthemum viscidiflorus lanceolatus | | | | | | | | | | | | | | | | | |
| Y | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 94 | 6 | - | - | - | - | - | - | - | - | 6 | - | - | - | 120 | | 6 |
| | 99 | 3 | - | - | - | - | - | - | - | - | 3 | - | - | - | 60 | | 3 |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| | 94 | 61 | - | - | - | - | - | - | - | - | 61 | - | - | - | 1220 | 14 18 | 61 |
| | 99 | 45 | 2 | - | 3 | - | - | - | - | - | 50 | - | - | - | 1000 | 14 18 | 50 |
| X | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 | | 1 |
| % Plants Showing | | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | <u>%Change</u> | | | | | |
| | '87 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| | '94 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | -21% | |
| | '99 | 04% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 0 | Dec: | - | | |
| | | | | | | | | | | | | '94 | 1340 | | - | | |
| | | | | | | | | | | | | '99 | 1060 | | - | | |
| Chrysanthemum viscidiflorus stenophyllus | | | | | | | | | | | | | | | | | |
| S | 87 | - | 2 | - | - | - | - | - | - | - | 2 | - | - | - | 133 | | 2 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| Y | 87 | 9 | 10 | 1 | - | - | - | - | - | - | 20 | - | - | - | 1333 | | 20 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| M | 87 | 10 | 7 | 1 | - | - | - | - | - | - | 18 | - | - | - | 1200 | 13 21 | 18 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| D | 87 | 2 | 3 | 2 | - | - | - | - | - | - | 7 | - | - | - | 466 | | 7 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| % Plants Showing | | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | <u>%Change</u> | | | | | |
| | '87 | 44% | | 09% | | 00% | | 00% | | 00% | | | | | | | |
| | '94 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| | '99 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 2999 | Dec: | 16% | | |
| | | | | | | | | | | | | '94 | 0 | | 0% | | |
| | | | | | | | | | | | | '99 | 0 | | 0% | | |
| Ribes spp. | | | | | | | | | | | | | | | | | |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| | 94 | 3 | - | - | 6 | - | - | - | - | - | 9 | - | - | - | 180 | 49 93 | 9 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| % Plants Showing | | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | <u>%Change</u> | | | | | |
| | '87 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| | '94 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| | '99 | 00% | | 00% | | 00% | | 00% | | 00% | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 0 | Dec: | - | | |
| | | | | | | | | | | | | '94 | 180 | | - | | |
| | | | | | | | | | | | | '99 | 0 | | - | | |

| A G R E | Y | Form Class (No. of Plants) | | | | | | | | | Vigor Class | | | | Plants Per Acre | Average (inches) Ht. Cr. | Total | |
|--|-----|----------------------------|---|---|------------------|---|---|-------------------|---|---|-------------|----------------|----|------|--------------------|--------------------------------|-------|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | | | | |
| Ribes cereum cereum | | | | | | | | | | | | | | | | | | |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| | 99 | 1 | - | - | - | - | - | 2 | - | - | 3 | - | - | - | 60 | 65 | 90 | 3 |
| % Plants Showing | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | | <u>%Change</u> | | | | | | |
| | '87 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| | '94 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| | '99 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 0 | Dec: | - | | | |
| | | | | | | | | | | | | '94 | 0 | | - | | | |
| | | | | | | | | | | | | '99 | 60 | | - | | | |
| Ribes montigenum | | | | | | | | | | | | | | | | | | |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| | 99 | - | - | - | - | - | - | 3 | - | - | 3 | - | - | - | 60 | 34 | 37 | 3 |
| % Plants Showing | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | | <u>%Change</u> | | | | | | |
| | '87 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| | '94 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| | '99 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 0 | Dec: | - | | | |
| | | | | | | | | | | | | '94 | 0 | | - | | | |
| | | | | | | | | | | | | '99 | 60 | | - | | | |
| Rosa woodsii | | | | | | | | | | | | | | | | | | |
| Y | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | | 0 |
| | 99 | 1 | - | - | - | - | - | - | - | - | 1 | - | - | - | 20 | | | 1 |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| | 94 | 1 | - | - | - | - | - | - | - | - | 1 | - | - | - | 20 | 12 | 19 | 1 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | - | 0 |
| % Plants Showing | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | | <u>%Change</u> | | | | | | |
| | '87 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| | '94 | 00% | | | 00% | | | 00% | | | | + 0% | | | | | | |
| | '99 | 00% | | | 00% | | | 00% | | | | | | | | | | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | '87 | 0 | Dec: | - | | | |
| | | | | | | | | | | | | '94 | 20 | | - | | | |
| | | | | | | | | | | | | '99 | 20 | | - | | | |

| A G R E | Y | Form Class (No. of Plants) | | | | | | | | | Vigor Class | | | | Plants Per Acre | Average (inches) Ht. Cr. | Total |
|--|----|----------------------------|---------------------|-----|---|------------------|-----|---|-------------------|-----|-------------|----------------|------|------|--------------------|--------------------------------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | | | |
| Sambucus racemosa | | | | | | | | | | | | | | | | | |
| Y | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | 1 | - | - | 1 | - | - | - | 20 | | 1 |
| M | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | - | 0 |
| | 94 | - | - | - | 3 | - | - | - | - | - | 3 | - | - | - | 60 | 29 | 40 |
| | 99 | - | - | - | 1 | - | - | 1 | - | - | 2 | - | - | - | 40 | 35 | 39 |
| % Plants Showing | | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | <u>%Change</u> | | | | | |
| | | | '87 | 00% | | '94 | 00% | | '99 | 00% | | | | | | + 0% | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | '87 | 0 | Dec: | - | | |
| | | | | | | | | | | | | '94 | 60 | | - | | |
| | | | | | | | | | | | | '99 | 60 | | - | | |
| Syphoricarpos oreophilus | | | | | | | | | | | | | | | | | |
| S | 87 | 28 | - | - | - | - | - | - | - | - | 28 | - | - | - | 1866 | | 28 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | 4 | - | - | - | - | - | - | - | - | 4 | - | - | - | 80 | | 4 |
| Y | 87 | 43 | 9 | - | - | - | - | - | - | - | 52 | - | - | - | 3466 | | 52 |
| | 94 | 9 | - | - | - | - | - | - | - | - | 9 | - | - | - | 180 | | 9 |
| | 99 | 4 | - | - | - | - | - | 1 | - | - | 5 | - | - | - | 100 | | 5 |
| M | 87 | 6 | 9 | 1 | - | - | - | - | - | - | 16 | - | - | - | 1066 | 25 | 16 |
| | 94 | - | - | 2 | - | - | - | - | - | - | 96 | - | - | - | 1920 | 22 | 96 |
| | 99 | 40 | 9 | 1 | 3 | - | - | 4 | - | - | 57 | - | - | - | 1140 | 25 | 57 |
| D | 87 | - | 4 | - | - | - | - | - | - | - | 4 | - | - | - | 266 | | 4 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | 3 | - | - | 3 | - | - | 2 | - | - | 8 | - | - | - | 160 | | 8 |
| X | 87 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | | 0 |
| | 99 | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 | | 1 |
| % Plants Showing | | | <u>Moderate Use</u> | | | <u>Heavy Use</u> | | | <u>Poor Vigor</u> | | | <u>%Change</u> | | | | | |
| | | | '87 | 31% | | '94 | 01% | | '99 | 00% | | | | | | -56% | |
| | | | | | | | | | | | | | | | | -33% | |
| Total Plants/Acre (excluding Dead & Seedlings) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | '87 | 4798 | Dec: | 6% | | |
| | | | | | | | | | | | | '94 | 2100 | | 0% | | |
| | | | | | | | | | | | | '99 | 1400 | | 11% | | |